



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0524; Directorate Identifier 2014-NM-042-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-400 series airplanes. This proposed AD was prompted by reports of corrosion in the low-rate discharge tubes of the fire protection system leading to the forward baggage compartment, and perforation of one or more tubes. This proposed AD would require repetitive checks for leakage of the discharge tubes of the fire protection system. This proposed AD also mandates eventual replacement of all existing aluminum tube assemblies with new, improved corrosion-resistant stainless steel tube assemblies. We are proposing this AD to prevent perforation of the low-rate discharge tubes, which could result in insufficient fire extinguishing agent reaching the forward baggage compartment in the event of a fire, which could result in damage to the airplane and injury to the occupants.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0524; or in person at the Docket

Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Fabio Buttitta, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7303; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0524; Directorate Identifier 2014-NM-042-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-06, dated January 21, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes. The MCAI states:

Corrosion has been reported in the fire protection system low rate discharge tubes leading to the forward baggage compartment. In some cases, this has led to perforation of one or more tubes.

Perforation of forward baggage compartment fire protection system tubes may result in decreased effectiveness of the fire protection system in the event of a fire in the forward baggage compartment.

This [Canadian] AD mandates a repetitive integrity check of the forward baggage compartment fire protection system tube assemblies, and the replacement of aluminum forward baggage compartment fire protection tube assemblies with corrosion resistant stainless steel (CRES) tubes.

The unsafe condition is perforation of the low-rate discharge tubes, which could result in insufficient fire extinguishing agent reaching the forward baggage compartment and reduce the capability of the fire protection system to extinguish fires, possibly resulting in damage to the airplane and injury to occupants. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0524.

Relevant Service Information

Bombardier has issued Service Bulletin 84-26-15, Revision A, dated January 15, 2014. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA’s Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

“Contacting the Manufacturer” Paragraph in this Proposed AD

Since late 2006, we have included a standard paragraph titled “Airworthy Product” in all MCAI ADs in which the FAA develops an AD based on a foreign authority’s AD.

We have become aware that some operators have misunderstood or misinterpreted the Airworthy Product paragraph to allow the owner/operator to use messages provided by the manufacturer as approval of deviations during the accomplishment of an AD-mandated action. The Airworthy Product paragraph does not approve messages or other information provided by the manufacturer for deviations to the requirements of the AD-mandated actions. The Airworthy Product paragraph only addresses the requirement to contact the manufacturer for corrective actions for the identified unsafe condition and

does not cover deviations from other AD requirements. However, deviations to AD-required actions are addressed in 14 CFR 39.17, and anyone may request the approval for an alternative method of compliance to the AD-required actions using the procedures found in 14 CFR 39.19.

To address this misunderstanding and misinterpretation of the Airworthy Product paragraph, we have changed the paragraph and retitled it “Contacting the Manufacturer.” This paragraph now clarifies that for any requirement in this proposed AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the FAA, TCCA, or Bombardier, Inc.’s TCCA Design Approval Organization (DAO).

The Contacting the Manufacturer paragraph also clarifies that, if approved by the DAO, the approval must include the DAO-authorized signature. The DAO signature indicates that the data and information contained in the document are TCCA-approved, which is also FAA-approved. Messages and other information provided by the manufacturer that do not contain the DAO-authorized signature approval are not TCCA-approved, unless TCCA directly approves the manufacturer’s message or other information.

This clarification does not remove flexibility previously afforded by the Airworthy Product paragraph. Consistent with long-standing FAA policy, such flexibility was never intended for required actions. This is also consistent with the recommendation of the Airworthiness Directive Implementation Aviation Rulemaking Committee to increase flexibility in complying with ADs by identifying those actions in

manufacturers' service instructions that are "Required for Compliance" with ADs. We continue to work with manufacturers to implement this recommendation. But once we determine that an action is required, any deviation from the requirement must be approved as an alternative method of compliance.

We also have decided not to include a generic reference to either the "delegated agent" or "design approval holder (DAH) with State of Design Authority design organization approval," but instead we have provided the specific delegation approval granted by the State of Design Authority for the DAH throughout this AD.

Costs of Compliance

We estimate that this proposed AD affects 82 airplanes of U.S. registry.

We also estimate that it would take about 42 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$7,852 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$936,604, or \$11,422 per product.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

Bombardier, Inc.: Docket No. FAA-2014-0524; Directorate Identifier 2014-NM-042-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, serial numbers 4001 through 4424 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 26, Fire protection.

(e) Reason

This AD was prompted by reports of corrosion in the low-rate discharge tubes of the fire protection system leading to the forward baggage compartment, and perforation of one or more tubes. We are issuing this AD to prevent perforation of the low-rate discharge tubes, which could result in insufficient fire extinguishing agent reaching the forward baggage compartment in the event of a fire, which could result in damage to the airplane and injury to the occupants.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Repetitive Inspections

At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD, perform an inspection (integrity check) for leakage of the fire protection tube assemblies of the forward baggage compartment, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 84-26-15, Revision A, dated January 15, 2014. If no leakage is found, repeat the inspection at intervals not to exceed 2,000 flight hours or 12 months, whichever occurs first. If any leakage is found, before further flight, do the terminating action required by paragraph (h) of this AD, except as provided by paragraph (i) of this AD.

(1) For airplanes that have accumulated 10,000 total flight hours or more, or have been in service for 60 months or more as of the effective date of this AD: Within 2,000 flight hours or 12 months after the effective date of this AD, whichever occurs first.

(2) For airplanes that have accumulated less than 10,000 total flight hours, and have been in service for less than 60 months, as of the effective date of this AD: Before the accumulation of 12,000 total flight hours or 72 months in service, whichever occurs first.

(h) Terminating Action

At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD: Replace all existing aluminum tube assemblies of the forward baggage compartment with new, improved corrosion-resistant stainless steel tube assemblies, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 84-26-15, Revision A, dated January 15, 2014, except as provided by paragraph (j) of this AD. Accomplishing this replacement terminates the repetitive inspections required by paragraph (g) of this AD.

(1) For airplanes that have accumulated 12,000 total flight hours or more, or have been in service for 72 months or more, as of the effective date of this AD: Within 6,000 flight hours or 36 months after the effective date of this AD, whichever occurs first.

(2) For airplanes that have accumulated less than 12,000 total flight hours, and have been in service for less than 72 months, as of the effective date of this AD: Before the accumulation of 18,000 total flight hours or 108 months in service, whichever occurs first.

(i) Alternative to Replacement for Failed Integrity Check

As an alternative to the immediate tube assembly replacement following any failed inspection (integrity check) required by paragraph (g) of this AD, the airplane may

be returned to service for a maximum of 10 days, provided the conditions specified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD are met.

(1) The forward baggage compartment is empty. For ballast purposes, the use of bags (made of glass fiber or Kevlar) of sand or ingots of non-magnetic metals (such as lead) are acceptable.

(2) The flight compartment and forward baggage compartment are placarded to indicate the forward baggage compartment is inoperative.

(3) An appropriate entry in the aircraft maintenance log is made.

(j) Exception to Service Information

The electrical bonding resistance check of the high rate discharge bottle, as identified in Part B of the Accomplishment Instructions of Bombardier Service Bulletin 84-26-15, Revision A, dated January 15, 2014, is not required by this AD.

(k) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g) and (h) of this AD, as applicable, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-26-15, dated June 7, 2013, which is not incorporated by reference in this AD.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In

accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the New York ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-553. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI)_Canadian Airworthiness Directive CF-2014-06, dated January 21, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0524.

(2) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email

thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on July 30, 2014.

Jeffrey E. Duvén,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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